IN THE CLAIMS

Please amend the claims as follows:

1. (Previously Presented) A combined battery and wireless-communications apparatus comprising:

a flexible support structure;

a first conductive layer deposited on a first surface area of the support structure;

a thin-film battery deposited as successive thin-film depositions over at least a portion of the first conductive layer, the battery comprising a cathode layer; a solid-state electrolyte layer, and an anode layer deposited such that either the anode layer or the cathode layer is in electrical contact with the first conductive layer, and the electrolyte layer in contact with and completely separating the anode layer and the cathode layer;

an antenna mounted to the support structure; and

an electronic communications circuit mounted to the support structure and electrically coupled to the battery and the antenna to transceive radio communications.

2. (Original) The apparatus according to claim 1, wherein the anode or the cathode or both include an intercalation material or a metal or both.

3. (Previously Presented) A combined battery and wireless-communications apparatus comprising:

a support structure;

a first conductive layer deposited on a first surface area of the support structure;

a thin-film battery deposited as successive thin-film depositions over at least a portion of the first conductive layer, the battery comprising a cathode layer; a solid-state electrolyte layer, and an anode layer deposited such that either the anode layer or the cathode layer is in electrical contact with the first conductive layer, and the electrolyte layer in contact with and completely separating the anode layer and the cathode layer;

an antenna mounted to the support structure; and

an electronic communications circuit mounted to the support structure and electrically coupled to the battery and the antenna to transceive radio communications, wherein:

the cathode layer comprises a lithium intercalation material deposited on the first conductive layer; and

the electrolyte layer comprises LiPON.

4. (Original) The apparatus according to claim 1, wherein:

the cathode layer comprises lithium cobalt oxide deposited on the first conductive layer; and

the electrolyte layer comprises LiPON.

5. (Previously Presented) The apparatus according to claim 1, wherein the support structure comprises a curved shape having a convex face and an opposing concave face, and the battery is curved and located on the concave face.

6. (Original) The apparatus according to claim 1, wherein the antenna is a thin-film trace deposited on the battery.

7. (Original) The apparatus according to claim 1, wherein the antenna is a thin-film trace deposited on the electronic communications circuit.

8. (Original) The apparatus according to claim 1, wherein the antenna is a thin-film trace deposited on the support structure.

9. (Original) The apparatus according to claim 1, wherein the electronic circuit includes a recharging circuit that recharges the battery using energy received by the antenna.

10. (Original) The apparatus according to claim 1, further comprising:

a photovoltaic cell, wherein the electronic circuit includes a recharging circuit that recharges the battery using energy received by the photovoltaic cell.

11. (Previously Presented) A method for making an integrated combined battery and wireless-communications device comprising:

providing a flexible support structure;

depositing a first conductive layer on a first surface area of the support structure;

depositing a thin-film battery as successive thin-film depositions over at least a portion of the first conductive layer, the battery comprising a cathode layer; a solid-state electrolyte layer, and an anode layer deposited such that either the anode layer or the cathode layer is in electrical contact with the first conductive layer, and the electrolyte layer in contact with and completely separating the anode layer and the cathode layer;

mounting an antenna to the support structure;

mounting an electronic communications circuit to the support structure; and

electrically coupling the electronic communications circuit to the battery and the antenna to transceive radio communications.

12. (Original) The method according to claim 11, wherein the anode or the cathode or both include an intercalation material or a metal or both.

13. (Original) The method according to claim 11, wherein the depositing of the thin-film battery comprises:

depositing a lithium intercalation material on the first conductive layer as the cathode layer; and

depositing the electrolyte layer on the cathode layer, wherein the electrolyte layer comprises LiPON.

14. (Original) The method according to claim 11, wherein the depositing of the thin-film battery comprises:

depositing a lithium cobalt oxide material on the first conductive layer as the cathode layer; and

depositing the electrolyte layer on the cathode layer, wherein the electrolyte layer comprises LiPON.

15. (Original) The method according to claim 11, wherein the depositing of the thin-film battery comprises:

depositing the cathode layer on the first conductive layer;

depositing the electrolyte layer on the cathode layer, wherein the electrolyte layer comprises LiPON; and

depositing the anode layer comprising a lithium intercalation material on the electrolyte layer.

16. (Previously Presented) The method according to claim 11, wherein the support structure has a curved shape having a convex face and a concave face, and the battery is curved and located on the concave face.

17. (Original) The method according to claim 11, wherein the mounting of the antenna comprises depositing a thin-film trace on the battery.

18. (Original) The method according to claim 11, wherein the mounting of the antenna comprises depositing a thin-film trace on the electronic communications circuit.

19. (Original) The method according to claim 11, wherein mounting of the antenna comprises depositing a thin-film trace on the support structure.

20. (Original) The method according to claim 11, wherein the electronic circuit includes a recharging circuit that recharges the battery using energy received by the antenna.

21. (Original) The apparatus according to claim 11, further comprising:

mounting a photovoltaic cell to the support structure, wherein the electronic circuit includes a recharging circuit that recharges the battery using energy received by the photovoltaic cell.

22. (Previously Presented) An integrated combined battery and wireless-recharging apparatus comprising:

a flexible support structure;

a first conductive layer deposited on a first surface area of the support structure;

a thin-film battery deposited as successive thin-film depositions over at least a portion of the first conductive layer, the battery comprising a cathode layer; a solid-state electrolyte layer, and an anode layer deposited such that either the anode layer or the cathode layer is in electrical contact with the first conductive layer, and the electrolyte layer in contact with and completely separating the anode layer and the cathode layer;

an energy-receiving device mounted to the support structure; and

an electronic communications circuit including an antenna mounted to the support structure and including a recharging circuit, the recharging circuit electrically coupled to the battery and the energy-receiving device to recharge the battery using energy received by the energy-receiving device.

23. (Original) The apparatus according to claim 22, wherein the anode or the cathode or both include an intercalation material or a metal or both, and wherein the electrolyte layer comprises LiPON.

24. (Original) The apparatus according to claim 22, wherein the cathode layer comprises lithium cobalt oxide deposited on the first conductive layer, and wherein the electrolyte layer comprises LiPON.

25. (Original) The apparatus according to claim 22, wherein the energy-receiving device comprises a photovoltaic cell.

26. (Original) The apparatus according to claim 22, wherein the energy-receiving device comprises an antenna.

27. (Original) The apparatus according to claim 22, wherein the energy-receiving device comprises an electromechanical electric generator.

28. (Original) The apparatus according to claim 22, wherein the energy-receiving device comprises an acoustic transducer.

29. (Original) The apparatus according to claim 22, further comprising a magnetic transducer.

30. (Original) The apparatus according to claim 22, further comprising an acoustic transducer.

31. (Currently Amended) An integrated combined ~~rechargable~~ rechargeable battery and wirelessly recharging hearing aid apparatus comprising:

a support structure;

a first conductive layer deposited on a first surface area of the support structure;

a thin-film battery deposited as successive thin-film depositions over at least a portion of the first conductive layer, the battery comprising a cathode layer; a solid-state electrolyte layer, and an anode layer deposited such that either the anode layer or the cathode layer is in electrical contact with the first conductive layer, and the electrolyte layer in contact with and completely separating the anode layer and the cathode layer;

a wireless energy-receiving device mounted to the support structure; and

an electronic hearing-aid circuit mounted to the support structure and including a recharging circuit, the recharging circuit electrically coupled to the battery and the energy-receiving device to recharge the battery using energy received by the energy-receiving device.

32. (Original) The apparatus according to claim 22, wherein the apparatus operates as an implantable medical device.

33. (Currently Amended) An integrated combined ~~rechargable~~ rechargeable battery and wirelessly recharging timepiece apparatus comprising:

a flexible support structure;

a first conductive layer deposited on a first surface area of the support structure;

a thin-film battery deposited as successive thin-film depositions over at least a portion of the first conductive layer, the battery comprising a cathode layer; a solid-state electrolyte layer, and an anode layer deposited such that either the anode layer or the cathode layer is in electrical contact with the first conductive layer, and the electrolyte layer in contact with and completely separating the anode layer and the cathode layer;

a wireless energy-receiving device mounted to the support structure; and

an electronic timepiece circuit mounted to the support structure and including a recharging circuit, the recharging circuit electrically coupled to the battery and the energy-receiving device to recharge the battery using energy received by the energy-receiving device.

34. (Previously Presented) The apparatus according to claim 22, wherein the anode comprises an intercalation material and wherein the electrolyte layer comprises LiPON.

35. (Previously Presented) The apparatus according to claim 22, wherein the cathode comprises an intercalation material and wherein the electrolyte layer comprises LiPON.

36. (Previously Presented) The apparatus according to claim 22, wherein both the anode and the cathode comprise an intercalation material and wherein the electrolyte layer comprises LiPON.

37. (Previously Presented) The apparatus according to claim 22, wherein the anode comprises a metal and wherein the electrolyte layer comprises LiPON.

38. (Previously Presented) The apparatus according to claim 22, wherein the cathode comprises a metal and wherein the electrolyte layer comprises LiPON.

39. (Previously Presented) The apparatus according to claim 22, wherein both the anode and the cathode comprise a metal and wherein the electrolyte layer comprises LiPON.

40. (Previously Presented) The apparatus according to claim 31, wherein the energy-receiving device comprises a photovoltaic cell.

41. (Previously Presented) The apparatus according to claim 33, wherein the energy-receiving device comprises a photovoltaic cell.